Antepartum Lecture
Women’s Health
Nsg 3207

Pregnancy History

- Gravida – Number of pregnancies
  Example: Gravida 3 means the patient has had 3 pregnancies

- Para – Parity – Number of pregnancies in which the fetus has reached the age of viability, regardless of whether or not the fetus is born live or dead
Terms cont’d

• Age of Viability – 24 weeks from last menstrual period/ or 400 grams weight of fetus (the age at which a fetus could survive if they were born)

• Term - Number of deliveries born between the beginning of week 38 and the end of week 42

Terms cont’d

• Preterm – Number of deliveries born after week 20 gestation, but before completion of week 37 gestation

• Post-term – Pregnancy beyond 42 weeks gestation

Terms cont’d

• Abortion – Pregnancy ending before age of viability. Elective and spontaneous abortions are counted together
5 Digit System

- G – Gravida
- T – Term
- P – Preterm
- A – Abortions
- L - Living

Examples of 5 Digit System

- A woman reports being pregnant 4 times counting this pregnancy. One baby was stillborn at 19 weeks. One pregnancy resulted in twins born at 35 weeks, and both survived. One was born at 38 weeks. The present time she is in her 6th week of pregnancy.
  - G4 T1 P1 A1 L3

Example of 5 Digit System

- A 35 year old patient came into a physician’s office because she had a positive pregnancy test. She had a history of one elective abortion at 15y/o. Then she had a 38 week baby who died. This pregnancy was estimated to be about 12 weeks along. Her pregnancy hx is:
  - G3 T1 P0 A1 L0
Signs of Pregnancy

• Presumptive – changes felt by the mother

• Probable – changes observed by an examiner. This includes pregnancy tests.

• Positive – signs attributable only to the presence of the fetus

Presumptive Signs

• Changes felt by the pregnant women
• Examples: enlarged breasts, morning sickness

Probable Signs

• Changes felt by the examiner

• Example: Pregnancy tests both urine and blood measure HCG
HCG

- Measure Human Chorionic Gonadotropin (HCG). This maintains the corpus luteum ensuring a continuous supply of estrogen and progesterone to maintain the pregnancy.

HCG - begins to rise 8-10 days after conception and peaks at 50-70 days after conception. Thereafter it decreases

Positive Signs

- A. Ultrasound: 5-6 weeks – presence of fetal sac or 6 weeks showing beat of fetal heart
- B. Doppler: 10-17 weeks - sound of fetal heart tones
- C. Stethoscope: 17-19 weeks – sound of fetal heart tones
- D. Palpation of fetal movement: 19-22 weeks
- E. Visible abdominal changes late in pregnancy
Length of Pregnancy

- Pregnancy – 40 weeks from first day of last menstrual period (approximately 9 months)

- Trimesters:
  - 1st Trimester = 1-13 weeks
  - 2nd Trimester = 14-26 weeks
  - 3rd Trimester = 27-40 weeks
Length of Gestation

- Gestation – Number of weeks from conception or actual time fetus has been growing inside the mom. (approximately 38 weeks)

Difference between Length of Pregnancy and Gestation

- Pregnancy is measured from the first day of the last menstrual period (40 weeks)
- Gestation is measured from conception (approximately 38 weeks)

Which is longer? Why is it longer?

Estimated Date of Birth

- EDC – expected date of confinement
- EDB - expected date of birth
Nagel’s Rule

- Used to determine EDC mathematically
- Use these steps:
  1. Determine the first day of the last menstrual period (LMP)
  2. Subtract 3 months from month or add 9 months whichever is most convenient
  3. Add 7 days
  4. Add 1 to the year if LMP is after March

Nagel’s Rule cont’d

- Example: LMP is 2/6/07
  1. Subtract 3 months/add 9 months from date
     2/6/04 + 9 = 11/6/07
  2. Add 7 days
     11/6/04 + 7 = 11/13/07
  Answer: 11/13/07

Nagel’s Rule cont’d

- Nagel’s Rule is only approximate, so a range is suggested for 7 days before and 7 days after the date calculated.
- Example: 11/13/07 would give a Range of 11/6/07 to 11/20/07
Nagel’s Rule cont’d

- Example: LMP is 4/29/07
  1. Subtract 3 months
     4/29/07 – 3 months = 1/29/07
  2. Add 7 days
     1/29/07 + 7 days = 2/5/07
  3. Add 1 to the year (because LMP is after March)
     Answer: 2/5/08 is EDC Range of 1/29/08 to 2/12/08

Adaptation to Pregnancy

Stages of Maternal Adaptation

- Acceptance (ambivalence)
- Developing maternal role (grief)
- Reordering personal relationships
- Changes in body image
- Fetal Attachment
- Preparing for childbirth (L&D)
Paternal Adaptation

- Accepting the pregnancy
- Reordering relationships
- Fetal attachment
- Preparing for childbirth
- Couvade syndrome
Sibling Adaptation

- Sharing spotlight. Begin interventions during prenatatal period. Do not wait until birth to prepare sibling; changing beds, bottle feeding, potty training etc.
- Example: Do not change out of nursery bed the night the newborn comes home. This is a sure disaster!

Antepartum Nursing Care Management

- Goals: (1) To provide optimal outcome of birth for mom newborn
  (2) To promote adjustment of family members to the newborn
Assessment
• Initial Visit
  » Head to toe Physical Assessment
  – Lab Work: UA, H&H, CBC, Type and X match, Rubella titre, Glucose Tolerance, Pap and Cervical Culture for STD’s, Skin Tests PPD. Also blood for Alpha Fetal Protein, and Multiple Marker Test

Lab Work Application
• H&H, CBC - Check for anemia, infections, electrolyte imbalance, Kidney function
• Type and X match – to have blood supply in case of emergency
• Glucose Tolerance – For Gestational Diabetes
• Cervical Pap – for cervical cancer

Lab cont’d
• Skin Tests – TB
• UA – check for glucose, protein, WBC’s
• Alpha Fetal Protein (AFP) Low levels associated with chromosomal and spinal cord abnormalities
• Multiple Marker Test – low levels associated with chromosomal abnormalities
Subsequent Visits

• Monthly Visits for 1st and 2nd Trimesters
• Biweekly Visits after 28 weeks
• Weekly Visits after 36 Weeks

Frequency increases because likelihood of complications increases in late pregnancy

Symptoms of Complications of Pregnancy

• Persistent Excessive Vomiting
• Ketonuria
• Uterine cramping / bleeding
• Chills/ fever
• Vaginal discharge

Each Subsequent Visit

• Vital signs – including BP. 140/90 considered hypertensive in pregnancy
• Normal: 1st Trimester – same as pre-pregnant state
  2nd Trimester – drops 5-10mm systolic and diastolic from pre-pregnant state
  3rd Trimester – Same as pre-pregnant state
Each Visit cont’d

• Fetal Assessment
  FHT
  Note fetal movement – “quickening” (around 20 weeks)
  Fundal height - allow pt to empty bladder, stretch paper tape from symphysis pubis to top of uterus (fundus), measure in CM.

Fetal Assessment

Ultrasonography – Performed to assess fetal age and well being. Measurements that can be taken are: head circumference and femur length. From these measurements, gestational age can be determined. Also, Visualization of heart, spine, kidneys, and genitalia can be done.
Fetal Assessment con’t

Amniocentesis – A sample of amniotic fluid can be obtained by puncturing the abdomen. Info about genetic disorders, congenital abnormalities and lung maturity can be obtained from the sample.

Antepartal Teaching

• Important part of each prenatal visit to help mom deal with changes occurring due to pregnancy
Antepartal Teaching

• Nutrition:
  • Well balanced diet
  • 5-6 small feedings a day is better tolerated than 3 heavy meals

Hygiene

• Usually perspire freely so may require more frequent showers
• Avoid “hot” baths or showers to prevent fainting
• Take showers instead of baths after “water breaks” or expulsion of operculum (mucus plug)

Urinary Tract

• Infections are common. Steps to prevent include:
  • Washing hands after toileting
    – Clean perineum front to back
    – Use soft, white tissue
    – Avoid bath oils, bubble baths
    – Wear cotton crotch underpants
    – Avoid tight fitting clothes
Urinary Tract cont’d

- Avoid tight fitting clothes
- Drink 2-3 liters of liquid/day
- Increase liquids if urine is brown or concentrate
- Do not limit fluid intake to avoid urinary frequency
- Void as often as needed – do not try to retain urine for long periods of time
- Yogurt or acidophilus milk may prevent UTI

Kegal Exercises

- Twice daily or as often as you think of it
- Helps prevent urinary incontinence
- Prepares pelvic muscles for labor

Dental Health

- Old wives tale is “a tooth for every child” is NOT true
- Gums may become swollen and have excessive salivation
- Work on good hygiene and prevention of dental caries with brushing and flossing
- Tooth or gum infections should be treated promptly to prevent infection of the fetus
Physical Activity

• Generally helpful to continue present activity level. If starting a new exercise plan, discuss with physician.
• Avoid risky activities such as mountain climbing or activities that she is not accustomed to involving bouncing, jerking, bearing down, holding your breath (Valsalva Maneuver)

Activity cont'd

• Take pulse - slow down if > 140.
• Stop activity if experiencing dyspnea, dizziness, numbness, tingling, or pain of any kind.

Posture and Body Mechanics

• Pelvic tilt exercises on hands and knees or standing against the wall will relieve lower back pain (10-12 reps)
• Use legs to bend – do not bend from the waist
• Do not lift heavy objects
Rest

- Plan regular rest periods especially as the pregnancy progresses
Employment

• Restrict from environments which are toxic to the fetus and activities which require balance or standing for long periods of time

Clothing

• Loose, non restrictive
• Support hose should be put on before rising from bed to prevent edema
• No tall heels or platform shoes
Travel

• In Normal pregnancy, travel is safe provided conditions are sanitary and medical care is available.
• In Hi- Risk pregnancy, travel is not recommended after the age of viability.
• In accidents placental separation may occur.

Car and Air travel

• Car – Wear restraints both shoulder and lap. The straps should go above and below the enlarged uterus. Make sure there is no restriction of blood circulation.
• Air – Wear restraints as in car travel when required. Take frequent walks about the plane to prevent thrombi. Increase hydration level.
Medications

- Generally ALL drugs (including OTC’s) must be approved by a physician.

- Teratogens - means drugs that are harmful to the fetus

- Kept a daily record of all drugs taken – even the most common cold medicines can be teratogenic

Substance abuse

- Cigarettes – causes growth retardation and increased fetal morbidity and mortality
- Caffeine – limit intake
- Alcohol – abstinence
- Marijuana, heroin, cocaine – harmful to fetus and may produce withdrawal symptoms after birth

Sex

- Conditions which contraindicate coitus :
  - More than 1 miscarriage
  - Threatened abortion in 1st trimester
  - Impending abortion in 2nd trimester
  - Premature Rupture of Membranes (PROM)
  - Bleeding
  - Abdominal Pain
Sex

• Old wives Tale: Sex will hurt the baby or Mom – NOT true in normal pregnancy
• Listen to couples and allow them to express concerns
• Many temporary problems can be handled by changing positions, alternative methods of satisfaction
• Continue to protect from STD’s

Nursing Care Planning for the Antepartal Patient

Nursing Process: Assessment and Diagnosis

• Assessment – data collected from prenatal visits and physical assessments.
• Diagnosis – nursing diagnosis are harder to come up with because there is no medical illness in a normal pregnancy. However, the patient has problems which are a normal part of pregnancy. Nursing plays a role in making the patient more comfortable and well adjusted in pregnancy. Identify areas of problems for each individual patient.
Nursing Diagnosis in Antepartum Patients

- Examples:
  - Anxiety r/t fetal well being
  - Altered family processes r/t mom’s labile emotions
  - Altered health maintenance r/t inadequate nutritional intake
  - Sleep pattern disturbance r/t enlarged abdomen
  - Knowledge r/t substance usage

Nursing Process: Outcomes

- Outcomes:
  - Name a specific patient behavior which will help the problem you identified. Add a time frame which is appropriate for accomplishing this behavior.
  - Example – Problem: Constipation r/t decreased fiber intake
    - Outcome: Increase servings of fiber in diet to 3x/day over the next week.
Interventions

• Usually the kinds of problems and interventions the patient exhibits will change over the course of pregnancy. These problems are called the “discomforts of pregnancy”. They are normal occurrences in pregnancy which can usually be managed with nursing care. They are arranged according to trimesters so that you can change your care plan as pregnancy progresses.

1st Trimester
Problems/Interventions

• Breast engorgement and tenderness – wear a supportive bra and cleanse with warm water only. Do not use any cleansing materials which will dry, crack, or be abrasive to the breasts.
• Urinary frequency – empty the bladder regularly. Do Kegals and report any pain on urination to the physician

1st Trimester
Problems/Interventions

• Fatigue – Rest as needed. Eat well balanced diet.
• N&V – Eat crackers and sprite on waking. Keep at bedside
• Eat 5-6 small feedings per day spreading food intake out to prevent hypoglycemia
• Avoid gas forming or fatty foods
• Report n &v to physician if it is not gone by 2nd trimester
1st Trimester Problems/Interventions

• Nasal Stuffiness – Use humidifier or saline nose drops. No cold or flu preparations unless physician approves them

• Leukorrhea – clear vaginal discharge. Wear peri-pad and change as frequently as possible to keep clean

1st Trimester Problems/Interventions

• Mood swings – allow patient or significant other to express concerns. May refer to support groups or Prenatal classes.

2nd Trimester Problems Interventions

• Skin Pigment changes – shade face, hands, arms from the sun. Usually the darkened areas will disappear after pregnancy

• Palpitations – report to physicians if accompanied by dyspnea, pulmonary edema, or cough.
### 2nd Trimester Problems

**Interventions**

- **Supine Hypotension** – caused by the Vena cava being compressed by the enlarged uterus when patient lies on back. Avoid back lying.
- **Orthostatic hypotension** – deep breathe, and rise slowly from a sitting position. Avoid sudden changes in position or warm crowded areas.

### 2nd Trimester Problems

**Interventions**

- **Food cravings** – satisfy craving unless it calls for food which is unsafe to eat or interferes with a normal, well balanced diet
- **Heartburn** – limit fatty foods or foods that readily produce gas. Avoid overeating and lying down after meals. May use antacids, but not Bicarbonate.

### 2nd Trimester Problems

**Interventions**

- **Constipation** – Exercise moderately, increase fiber and fluid. DO NOT take laxatives.
- **Flatulence** – avoid gas forming foods, chew foods slowly.
2nd Trimester Problems
Interventions
• Varicose veins – avoid sitting or standing for long periods, avoid restrictive clothing, and constipation. Wear support hose and elevate legs and hips at rest periods.

• Headaches – stress management. If h/a is constant or frequent, consult physician.

2nd Trimester Problems
Interventions
• Carpal Tunnel Syndrome – elevate affected arms to relieve edema.

• Round Ligament Pain - this ligament is stretched as it holds up the enlarged uterus. Rest in the horizontal position and heat may help.

2nd Trimester Problems
Interventions
• Back ache and joint pain – wear low-heel shoes. Apply heat, message, and rest the affected joint. For back, use pelvic rock exercises.
Discomforts of 3rd Trimester

• Dyspnea – sleep with extra pillows, avoid overfilling stomach, stay adequately rested

• Insomnia – Relaxation, back message, supporting body with pillows when in bed, warm milk or warm shower before bed time to relax her.

Discomforts of 3rd Trimester

• Mood swings – Communication between partners and reassure the hormones of pregnancy alter normal emotional responses

• Gingivitis – frequent oral hygiene, adequate diet

Discomforts of 3rd Trimester

• Perineal discomfort – rest, good posture

• Braxton Hicks contractions – change position or mild exercise will usually stop them. Frequently mistaken for labor in late pregnancy.
Discomforts of 3rd Trimester

- Leg cramps – dorsiflex foot until spasm relaxes. Aluminum hydroxide gel with each meal to eliminate the excess phosphorus. Oral supplements of Calcium Carbonate or calcium lactate.
Discomforts of 3rd Trimester

• Ankle edema – extra fluid intake, support hose, rest with legs and hips elevated. Contact physician if generalized edema ie. Face, hands. Most pedal edema should go away over night.

Recognizing Pre Term Labor

•Definition: labor at 20-37 weeks which should be stopped to prevent preterm birth
•Call physician if:
  – Contractions q 10 minutes or more for an hour
  – Backache which is regular and hard for over an hour
  – Bloody spotting or fluid leaking from the vagina